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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,271	12/03/2003	Mark D. Schaake	01925- P0230A	4892
24126	7590	12/06/2006	EXAMINER	
ST. ONGE STEWARD JOHNSTON & REENS, LLC			HAMO, PATRICK	
986 BEDFORD STREET			ART UNIT	
STAMFORD, CT 06905-5619			PAPER NUMBER	
			3746	

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/727,271

**Applicant(s)**

SCHAAKE, MARK D.

**Examiner**

Patrick Hamo

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>23 Feb 04, 10 Jun 05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-11, 13-16, and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Collins, 2,246,932.

Collins discloses a pumping device or piston 6 disposed in a housing or cylinder 5 that serves as a piston channel, the cylinder including a plurality of inlets 9, 24 and outlets 11, 23 and two fluid chambers C1 and C2, fluid chamber C1 in fluid communication with inlet 9 and receiving fluid when the piston is moved towards the right in figure 1, fluid chamber C2 in communication with outlet 11, a conduit 25 which communicates fluid from chamber C1 to chamber C2 when the piston moves to the left in figure 1, a conduit 16 which communicates chamber C1 to the outlet, the left face of piston 6 defining part of chamber C1 and exerting a force on fluid in chamber C1 when the piston is moved towards the left, and the right face exerting a force on chamber C2 when moved to the right, a valve assembly 28 selectively sealing conduit 25 and allowing for flow in either direction (column 4, lines 38-60), actuated by a control element as shown in figure 3 in response to a threshold value of compressor fluids (column 6, lines 12-72), chamber C1 having a passage 23 for receiving and

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discharging fluid, the valve assembly located in this passage, and the two chambers C1 and C2 in fluid communication through this passage, but not when the device is in single-stage operation (column 4, lines 15-20), the method of operation for this device including urging fluid into chamber C1 as the piston 6 moves to the right in figure 1, where the fluid is compressed as the piston moves to the left in figure 1, from where some of the fluid flows through outlet 11 to discharge and some through valve assembly 28 to chamber C2 where the fluid is further compressed and urged through outlet 11 (column 2, line 42 – column 4, line 15).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Collins in view of Braun, 4,111,609, and further in view of Mori, 6,817,838.

Collins discloses all the limitations substantially as claimed except for the following taught by Braun: a housing with a portion 11 that partially encloses a crankshaft and motor 15 eliminating external piping and providing a good appearing compressor (Abstract, lines 5-8); and the following taught by Mori: an oil seal 22 separating the drive shaft from the rest of the housing.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Collins with Braun and Mori in order to make the compressor more aesthetically pleasing (Braun, Abstract, lines 5-8).

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Collins in view of Xin, 6,363,893.

Collins discloses all the limitations substantially as claimed except the following taught by Xin: a water jacket for a cylinder head for transferring heat from the cylinder head to a flowing coolant (Abstract, lines 1-3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Collins with Xin to cool the cylinder (Abstract, lines 1-3).

6. Claims 12, 17-20 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins in view of Bishop et al., 6,072,088.

Collins discloses all the limitations substantially as claimed except the following taught by Bishop: an electronically actuated outlet sealing valve opened and closed in response to electrical signals sent to it by a computer-regulated electric power supply, opening the valve to communicate the pump chamber with an outlet and closing to seal off the operation in response to feedback signals of the pressure (column 15, lines 3-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Collins with Bishop to make the pump self-actuated and hence more automated (column 2, lines 34-36).

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7. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins in view of Bolthouse et al., 5,493,953.

Collins discloses all the limitations substantially as claimed except the following taught by Bolthouse: a wall plate 40 mounted on the head of a cylinder 42 sealing the pump chamber from a chamber below the piston (see figure 1), for the purpose of more stably guiding the piston in the housing (column 2, lines 11-13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Collins with Bolthouse to more stably guide the piston (column 2, lines 11-13).

#### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Hamo whose telephone number is 571-272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

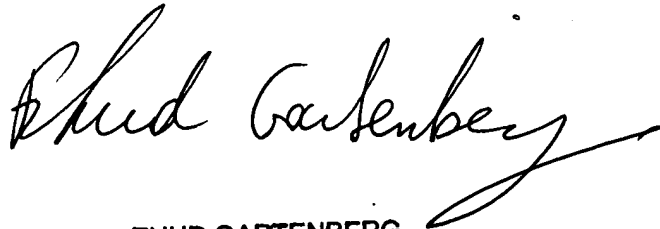
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



PH

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